UNIVERSIDAD DE EXTREMADURA

Del Open Access al Open Data: retos, políticas e iniciativas

Prof. Dr. Eva Méndez @evamen

Universidad Carlos III de Madrid

Cáceres, 25 Octubre 2016

… de qué voy a hablar

- OA a OS:

  De la canción de campamento a la voluntad política internacional
- Retos (muchos)
- Políticas (EC, OSPP)
- Iniciativas (algunas: RD-Alliance, Maredata)

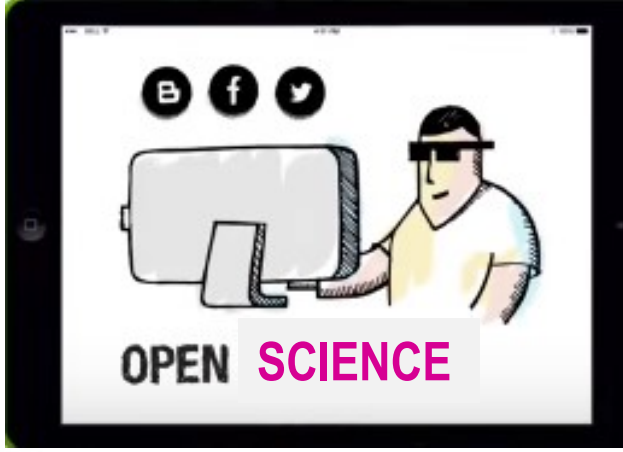
Open Science

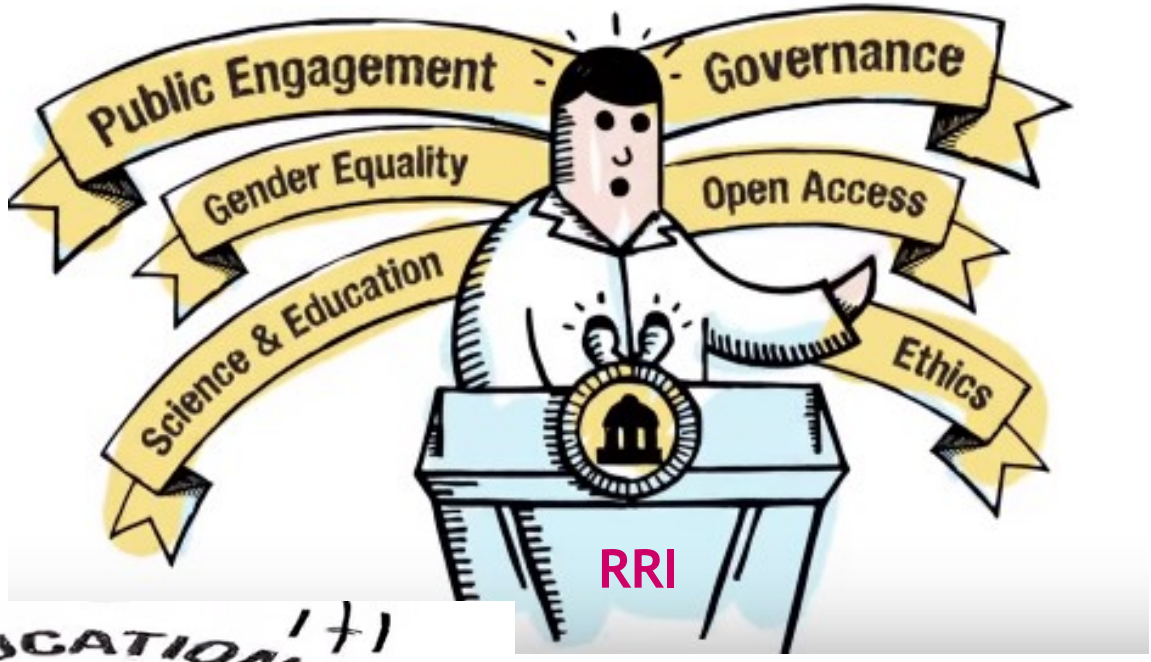
Un contexto

THE RIGHT TO SCIENCE AND CULTURE

LEA SHAVER*

The Universal Declaration of Human Rights states: "Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits." This Article



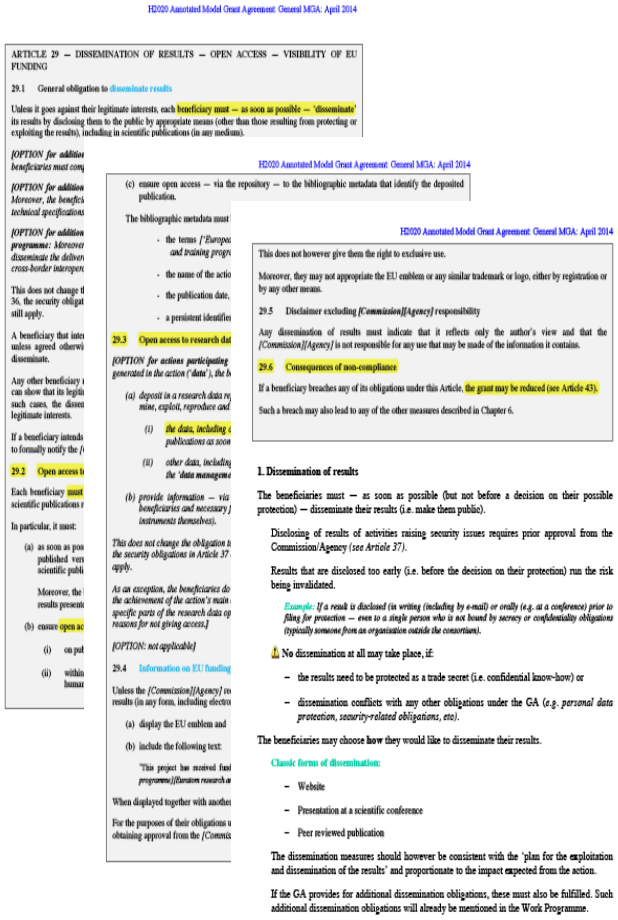


*… Where **openness** and transparency are an integral component of the research and innovation process*

No sólo acceso abierto (OA) a publicaciones

No sólo un piloto de datos→ todos los proyectos, desde Enero 2017

Open Science en



H2020 Annotated Model Grant Agreement: General MGA: April 2014

ARTICLE 29 – DISSEMINATION OF RESULTS – OPEN ACCESS – VISIBILITY OF EU FUNDING

29.1 General obligation to disseminate results

Unless it goes against their legitimate interests, each beneficiary must – as soon as possible – 'disseminate' its results by disclosing them to the public by appropriate means (other than those resulting from protecting or exploiting the results), including in scientific publications (in any medium).

29.3 Open access to research dat

(c) ensure open access – via the repository – to the bibliographic metadata that identify the deposited publication.

The bibliographic metadata must

- the terms ['Europe and training progr
- the name of the actio
- the publication date,
- a persistent identifie

(a) deposit in a research data re mine, exploit, reproduce and

(i) the data, including publications as soon

(ii) other data, including the 'data manageme

(b) provide information – via beneficiaries and necessary instruments themselves).

This does not change the obligation t the security obligations in Article 37 apply.

As an exception, the beneficiaries do the achievement of the action's main specific parts of the research data o reasons for not giving access.]

[OPTION: not applicable]

29.4 Information on EU funding

Unless the [Commission][Agency] re results (in any form, including electro

(a) display the EU emblem and

(b) include the following text:

'This project has received fund programme][Horizon research a

When displayed together with another

For the purposes of their obligations u obtaining approval from the [Commis

This does not however give them the right to exclusive use.

Moreover, they may not appropriate the EU emblem or any similar trademark or logo, either by registration or by any other means.

29.5 Disclaimer excluding [Commission][Agency] responsibility

Any dissemination of results must indicate that it reflects only the author's view and that the [Commission][Agency] is not responsible for any use that may be made of the information it contains.

29.6 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 43).

Such a breach may also lead to any of the other measures described in Chapter 6.

1. Dissemination of results

The beneficiaries must – as soon as possible (but not before a decision on their possible protection) – disseminate their results (i.e. make them public).

Disclosing of results of activities raising security issues requires prior approval from the Commission/Agency (see Article 37).

Results that are disclosed too early (i.e. before the decision on their protection) run the risk being invalidated.

Example: If a result is disclosed (in writing (including by e-mail) or orally (e.g. at a conference)) prior to filing for protection – even to a single person who is not bound by secrecy or confidentiality obligations (typically someone from an organisation outside the consortium).

⚠ No dissemination at all may take place, if:

- the results need to be protected as a trade secret (i.e. confidential know-how) or
- dissemination conflicts with any other obligations under the GA (e.g. personal data protection, security-related obligations, etc).

The beneficiaries may choose how they would like to disseminate their results.

Classic forms of dissemination:

- Website
- Presentation at a scientific conference
- Peer reviewed publication

The dissemination measures should however be consistent with the 'plan for the exploitation and dissemination of the results' and proportionate to the impact expected from the action.

If the GA provides for additional dissemination obligations, these must also be fulfilled. Such additional dissemination obligations will already be mentioned in the Work Programme.

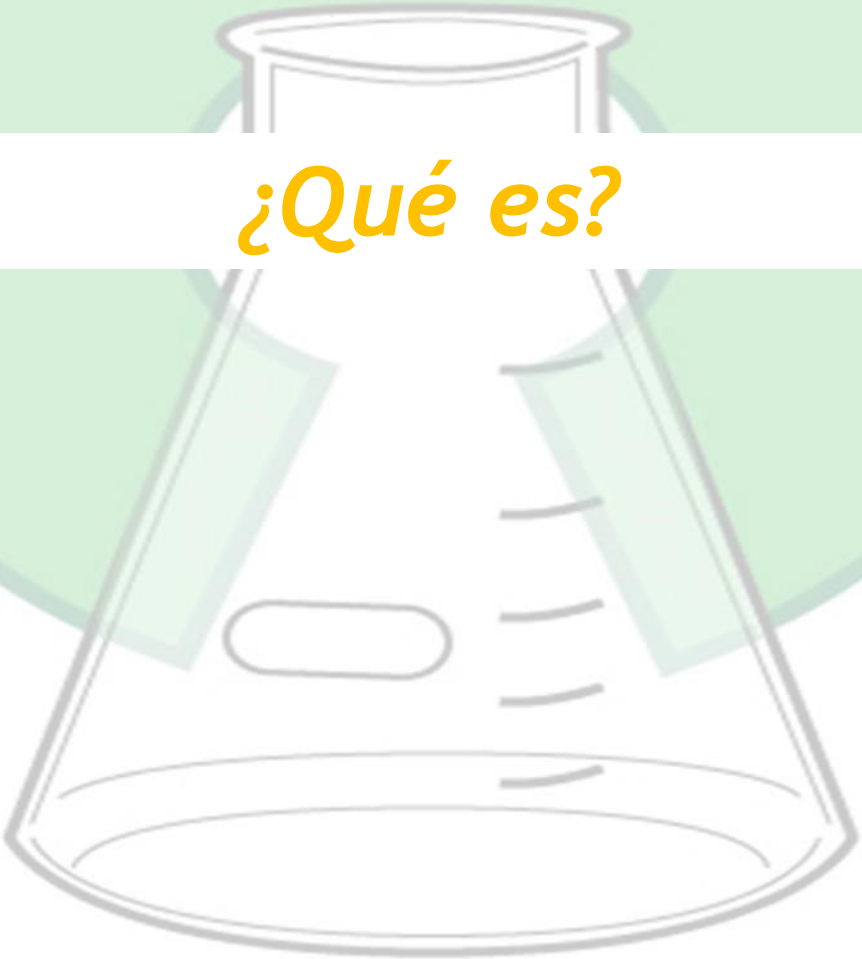
"Each beneficiary must ensure open access to all peer-reviewed scientific publications"

*"deposit **research data** ... to make it possible for third parties to access, mine, exploit, reproduce and disseminate, free of charge"*

Source: http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/amga/h2020-amga_en.pdf

Open Science

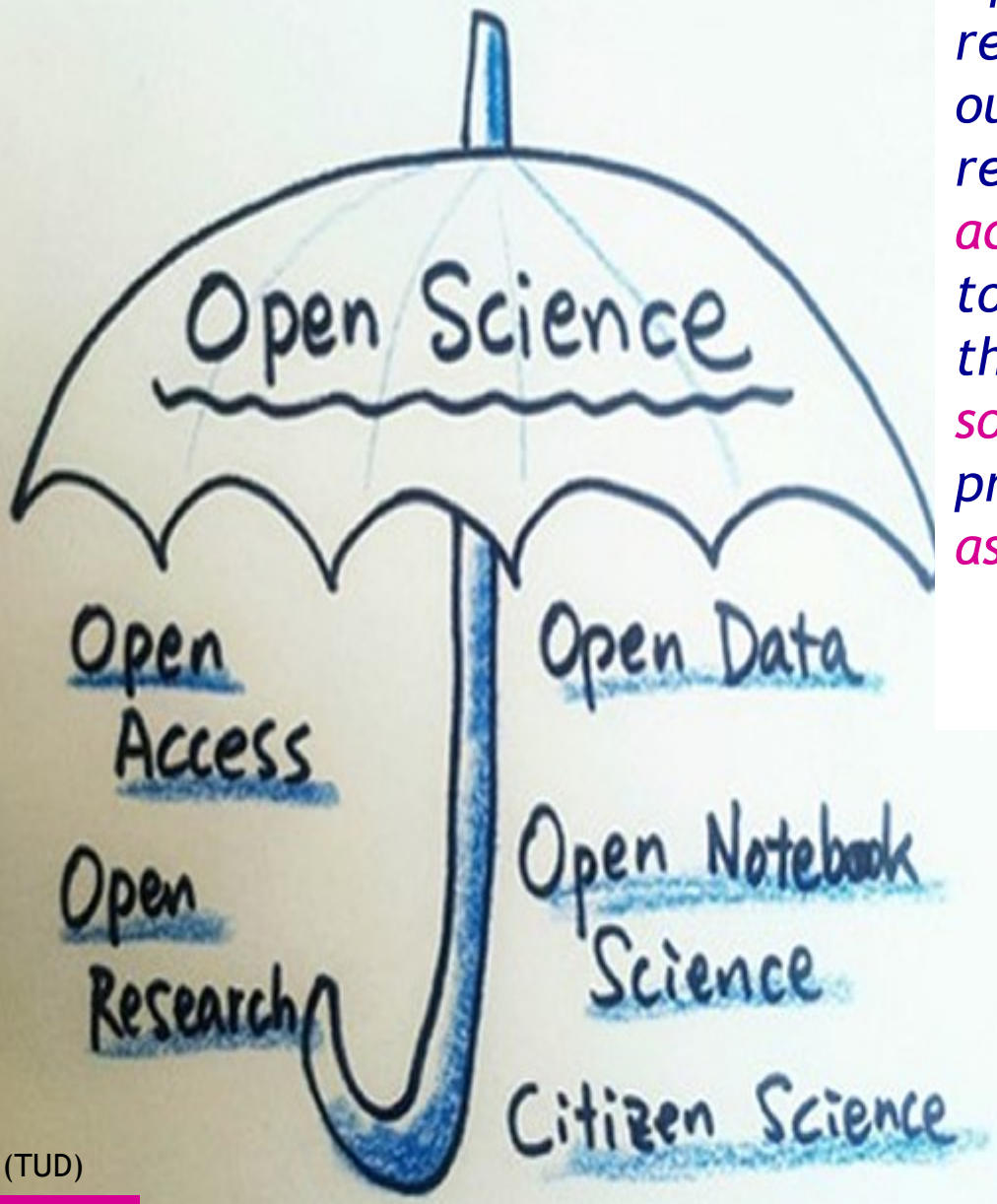
¿Qué es?



Open Science

"science carried out and communicated in a manner which allows others to contribute, collaborate and add to the research effort, with all kinds of data, results and protocols made freely available at different stages of the research process."

Research Information Network, Open Science case studies
www.rin.ac.uk/our-work/data-management-and-curation/open-science-case-studies



Open science commonly refers to efforts to make the output of publicly funded research more widely accessible in digital format to the scientific community, the business sector, or society more generally … to promote long-term research as well as innovation.

OECD Sept 2015

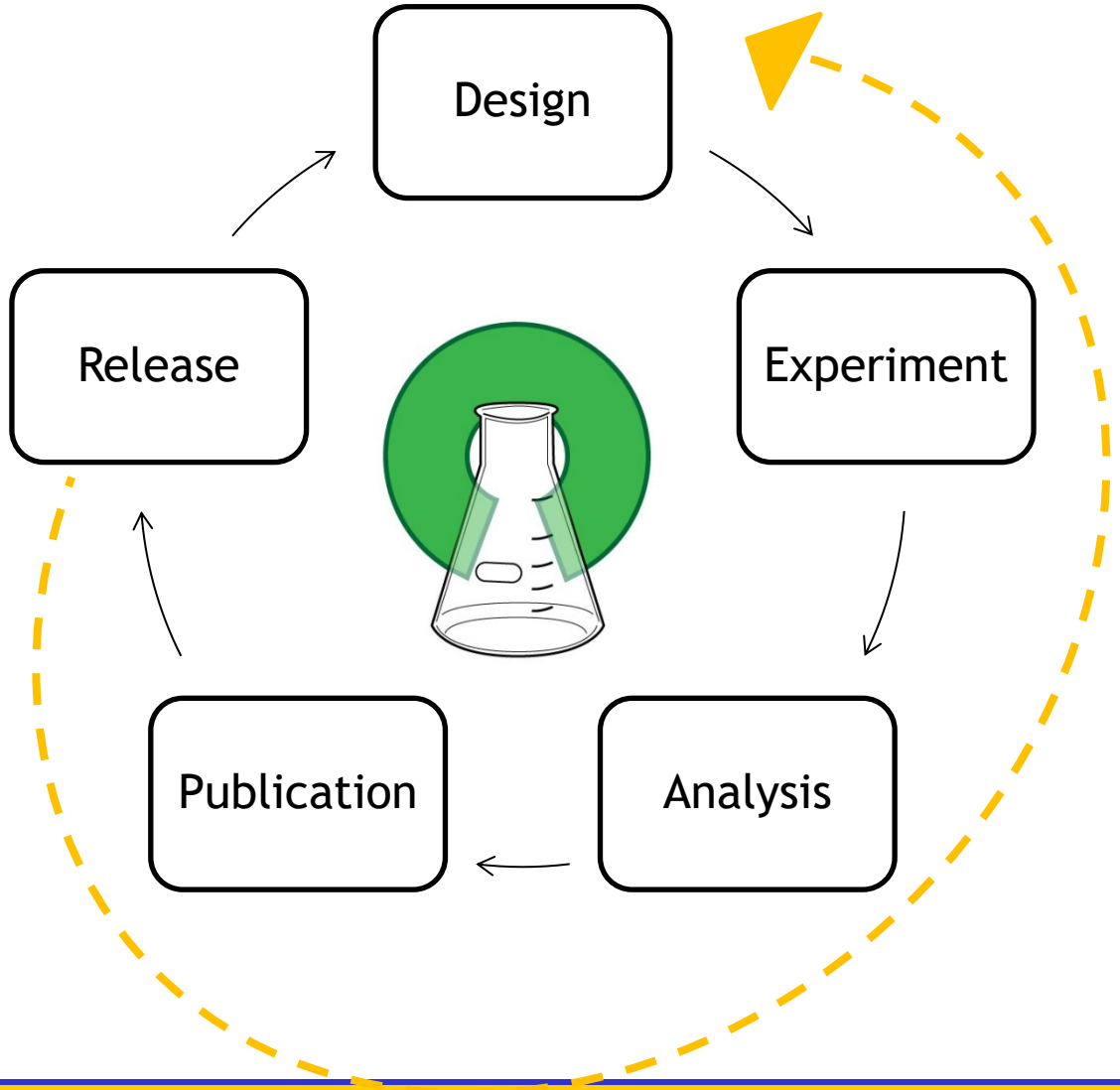
Ivo Grigorov (TUD)

FOSTER

#AllAboutOpen

- Open Software (FOSS)
- Open Access
- Open Education (OERs, MOOCs)
- Open Data and LOD
- Open knowledge
- Creative Commons Licensing
- Open design
- Web 2.0 → Open methods (colaborativos, tipo wiki: Open notebook science)
- Y por supuesto… **Open Science/Open Research**

#AlwaysOpen



Cambio en el ciclo de vida de la investigación

Publicar desde el principio y liberar más

Papers + Datos + Métodos+ Código…

Apoyar la reproducibilidad

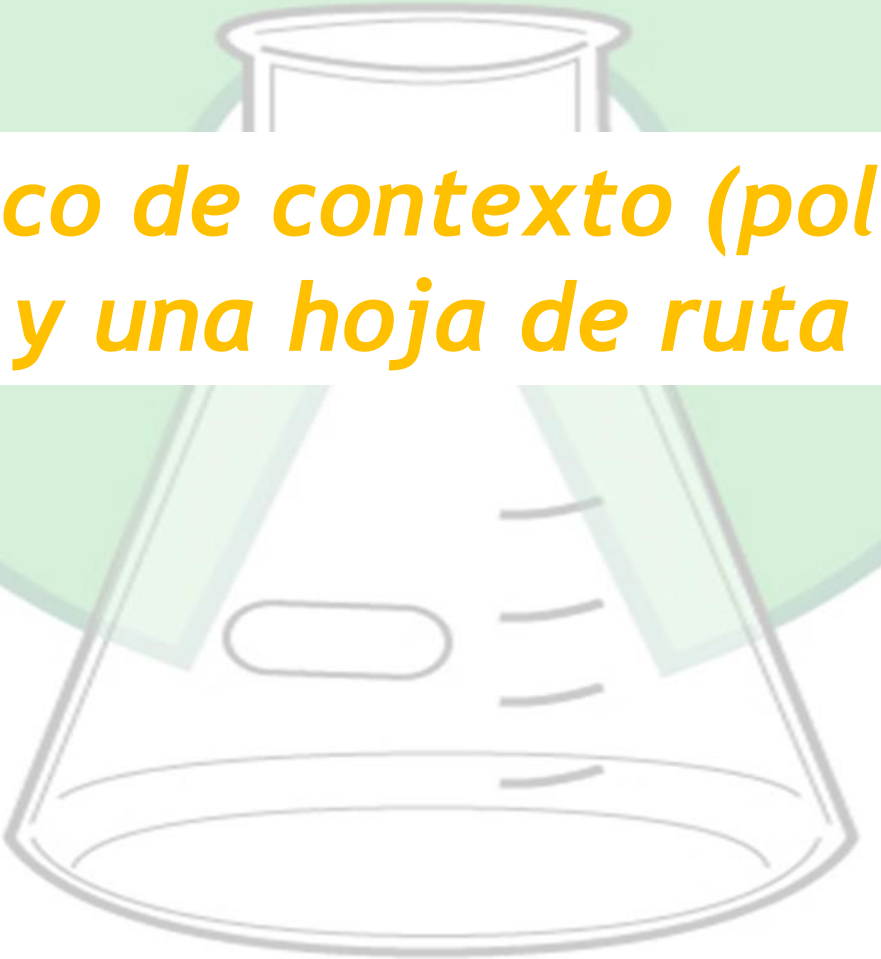
Factores clave para la Open Science

- Crecimiento exponencial de los datos
- Disponibilidad de tecnologías digitales
- Crecimiento de la población “científica” global
- Demanda pública de una ciencia mejor y más eficaz
- Demanda de una ciencia más responsable, sensible y transparente
- Necesidad de abordar desafíos sociales más rápido.
- Necesidad de contribuir al crecimiento económico.

(Basado en: J.C. Burgelman, 2015)

Más allá del OA...

Un poco de contexto (político) y una hoja de ruta



CORDIS

Servicio de Información Comunitario sobre Investigación y Desarrollo

Comisión Europea > CORDIS > Noticias y Eventos > Open Acess Research Data without Barriers Conference in Gothenburg, Sweden

Buscar | Iniciar sesión

NOTICIAS Y EVENTOS | PROYECTOS Y RESULTADOS | REVISTAS DE RESEARCH*EU | PARTNERS

Descargar | Imprimir | Booklet | My booklet (0)

Open Acess Research Data without Barriers Conference in Gothenbu

Contributed by: Trust-IT Services

From 2013-03-18 **to** 2013-03-20, Austria

Research Data Alliance Launch and First Plenary
March 18-20, 2013, Gothenburg, Sweden

RDA
RESEARCH DATA ALLIANCE

http://europa.eu/rapid/press-release_SPEECH-13-236_en.htm

"… **the era of Open Science.** I'm in no doubt we are entering that phase: and that the **impact will be good for citizens, good for scientists and good for society.**

Whether it's scientific results, the **data they are based on**, the software used for analysis, or the education resources that help us teach and learn, **being more open** can help, **transforming every discipline** from astronomy to zoology, and **making our lives better**. (Nelie Kroes. RDA, 2013)"

Imperativo político (la CE & *Openness*)

"Open Science, of which Open Access is an important part, will be vital to ensuring European progress and prosperity in the future"

(Moedas. Speech at NETHER, January 26, 2015)

A NEW START FOR EUROPE

OPENING UP TO AN **ERA** OF **INNOVATION**

Open Science,
Open Innovation
Open to the World

http://europa.eu/rapid/press-release_SPEECH-15-5243_en.htm

Imperativo económico

"…Open access to scientific results and data is a ***great way to boost science, boost the economy, and enable new techniques and collaborations between disciplines****.*

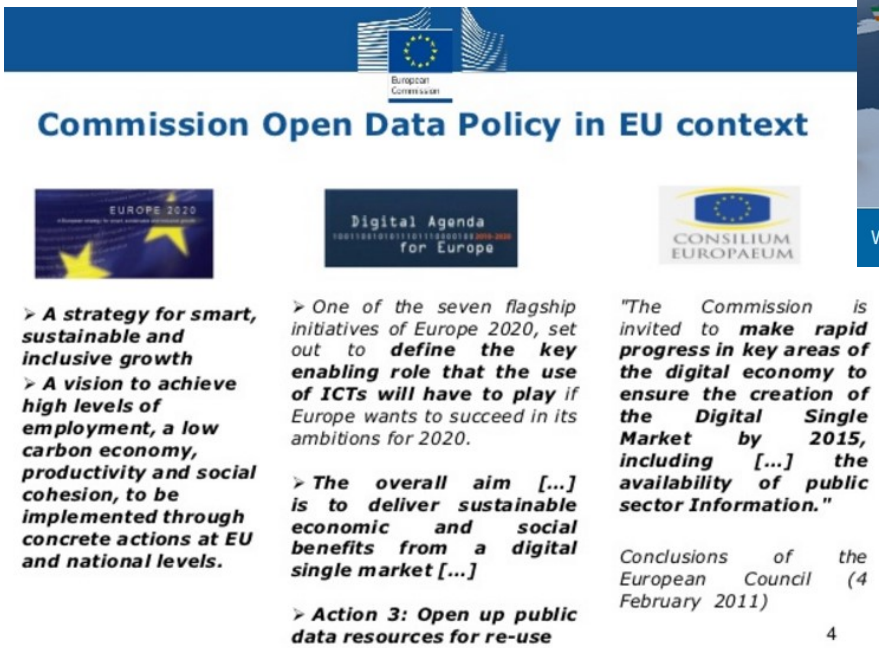
Really it's quite simple: it's about ensuring you can see the ***results you've already paid for through your taxes****…."*

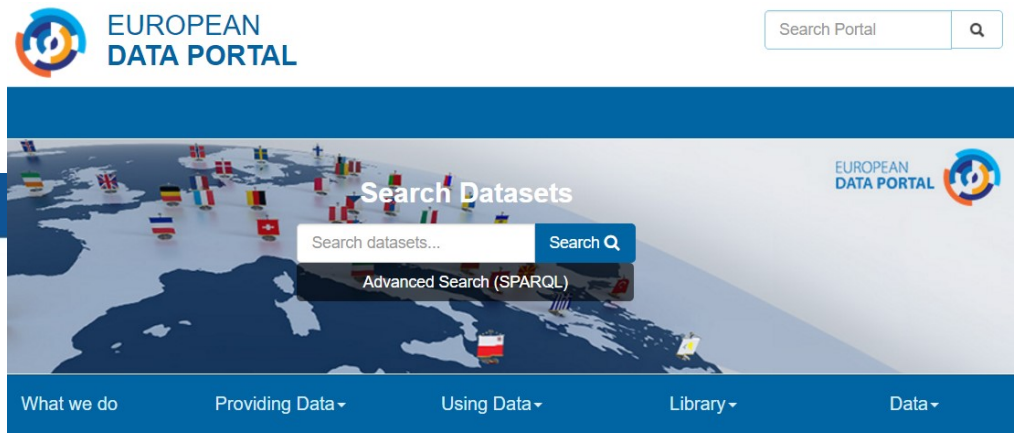
(Nelie Kroes)

Cartoon by Auke Herrema

RDA RESEARCH DATA ALLIANCE Magazine

¿Imperativo legal?





PSI

https://ec.europa.eu/digital-agenda/en/european-legislation-reuse-public-sector-information

*"…Open access to scientific results and data is a **great way to boost science, boost the economy, and enable new techniques and collaborations between disciplines**.*

*Really it's quite simple: it's about ensuring you can see the **results you've already paid for through your taxes**…."*

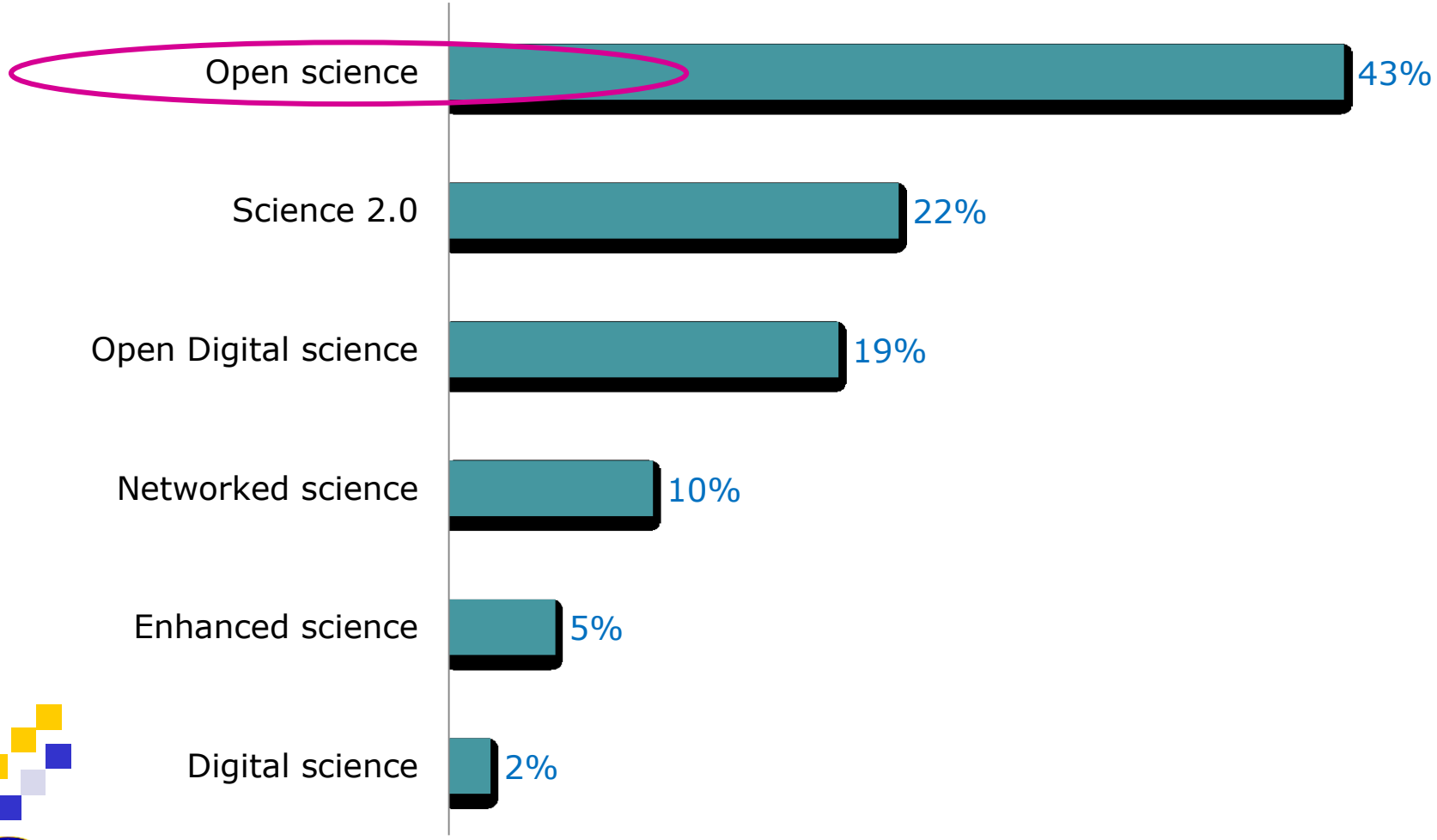
(Nelie Kroes)

Imperativo social

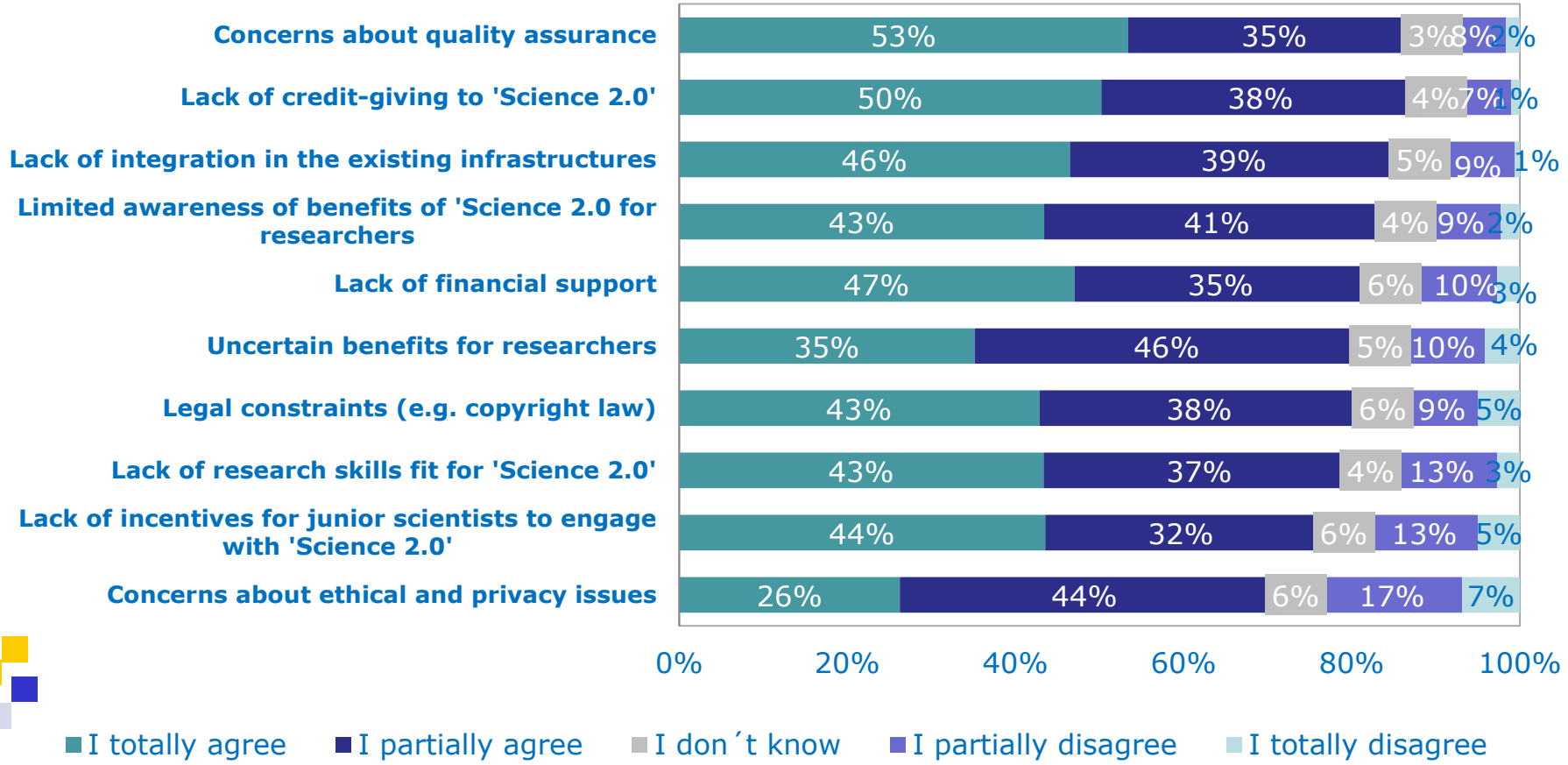
Public consultation in Science 2.0
Julio-Sept 2014

- Evaluar el grado de conciencia por parte de los agentes implicados ante la diversidad de modus operandi.
- Evaluar la percepción de las oportunidades y desafíos.
- Identificar las posibles implicaciones y acciones políticas para fortalecer la competitividad del sistema de la ciencia y la investigación europea.

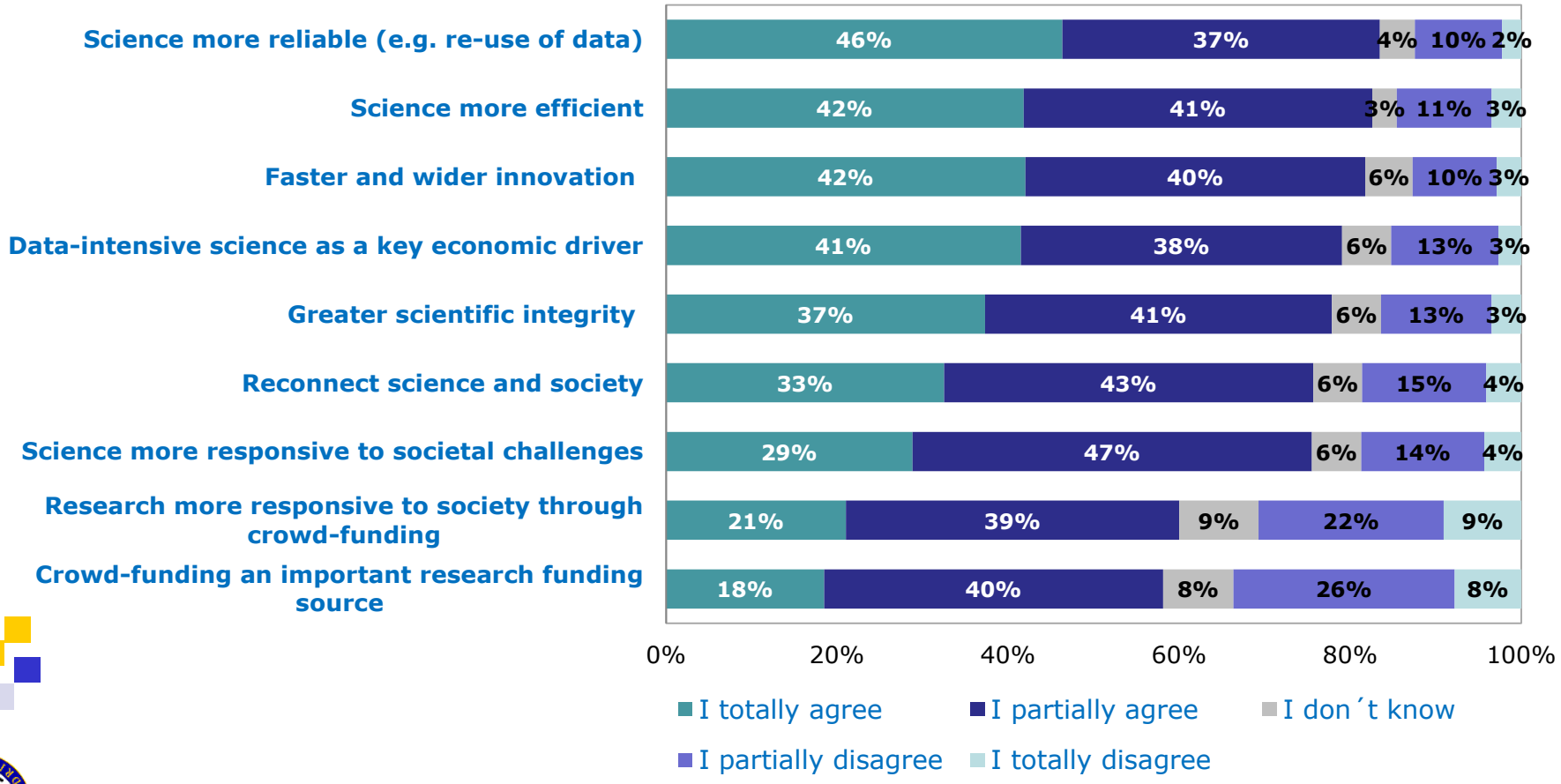
El término más apropiado



Barreras de la Open Science (2.0)



Implicaciones para la Economía la Sociedad y el sistema de investigación actual



European Research Area - Data-intensive and networked research - Open science

Los Estados miembros expresaron su deseo para el desarrollo de una ***Agenda Europea de la Ciencia Abierta***

- Actuar para eliminar obstáculos para el acceso a las **publicaciones** de investigación financiados con fondos públicos y los **datos** subyacentes
- Actuar también para una mejor gestión de datos y, en este contexto, WELCOME!! ***Pilot on Open Research Data under Horizon 2020;***
- En el contexto de la implementación del ERA se espera que exista la posibilidad de elaborar **planes de acción o estrategias para la Open Science**

- *Open Science, Open Innovation & Open to the World*
- *Openness is the key of excellence*
- *Launch of the EU Open Science Agenda*

2016: From vision to action

Llamada a la acción! 4-5 abril 2016

Formulado para alcanzar dos importantes **objetivos** pan-Europeos para el 2020:

1. **Acceso Abierto completo a todas las publicaciones científicas**
2. **Una aproximación totalmente nueva hacia la reutilización óptima de los datos de investigación**

Para alcanzar estos objetivos en el 2020 se necesita una **política** que los proteja:

- **Nuevos sistemas de valoración, recompensa y evaluación**
- **Alinear las políticas e intercambiar las mejores prácticas**

http://english.eu2016.nl/documents/reports/2016/04/04/amsterdam-call-for-action-on-open-science

Infraestructuras, RRHH y buenas prácticas: 19 de abril 2016

Bruselas, 19.4.2016
COM(2016) 178 final

COMUNICACIÓN DE LA COMISIÓN AL PARLAMENTO EUROPEO, AL CONSEJO, AL COMITÉ ECONÓMICO Y SOCIAL EUROPEO Y AL COMITÉ DE LAS REGIONES

Iniciativa Europea de Computación en la Nube: construir en Europa una economía competitiva de los datos y del conocimiento

{SWD(2016) 106 final}
{SWD(2016) 107 final}

- Infraestructuras de alto rendimiento (imposibles a nivel estado)
- Estándares, protocolos (interoperabilidad)
- Recursos humanos: Formación de nuevos especialistas (data scientists, data librarians)
- Buenas prácticas en gestionar y compartir datos

http://eur-lex.europa.eu/legal-content/ES/TXT/PDF/?uri=CELEX:52016DC0178&from=en

European Council
Council of the European Union

Competitiveness Council Mayo 2016

El **Consejo de Ministros** de Ciencia de los países de la UE se pusieron de acuerdo en:

- Apoyo a la EC para H2020 y las iniciativas políticas de la EU
- Apoyar más coordinación y armonización en estándares comunes
- **OSPP: *Open Science Policy Platform:*** Desarrollar más y mejores interacciones con los agentes implicados

Todas las publicaciones financiadas con fondos públicos sean de libre acceso en 2020 + óptima reutilización de los datos de investigación: debería ser: *"as open as possible, as closed as necessary".*

Reutilización de los datos: principios FAIR (*findable, accessible, interoperable and re-usable*) dentro de un entorno confiable y seguro

http://data.consilium.europa.eu/doc/document/ST-9526-2016-INIT/en/pdf

OSPP: 25 miembros / 8 grupos de stakeholders

- **Universities:**
  - Norbert Lossau (EUA)
  - Kurt Deketelaere (LERU)
  - Karel Luyben (CEASAR)
  - Eva Méndez (YERUN)
  - Manuela Epure (ACEU)
- **Research organizations:**
  - Ernst Kristiansen (EARTO)
  - Michela Bertero (EU-LIFE)
  - Michele Garfinkel (EMBO)
  - Tuija Hirvikoski (ENoLL)
- **Academies/Learned Societies:**
  - Christophe Rossel (EPS)
  - Wolfram Koch (EUCHEMS)
  - Michela Vignoli (YEAR)
  - Sabina Leonelli (GYA)
- **Funding organisations:**
  - Matthias Kleiner. Science Europe
- **Citizen Science organisations:**
  - Johannes Vogel (ECSA), *Chair*
- **Publishers:**
  - Michael Mabe (STM)
  - Paul Peters (OASPA)
- **OS platforms and intermediaries:**
  - Rebecca Lawrence (F1000)
  - John Wood (RDA)
  - Steve Cotter (GÉANT)
  - Sergio Andreozzi (EGI)
  - Natalia Manola (OpenAIRE)
  - Jennifer Edmond (DARIAH),
  - Jan van den Biesen. Business EU
- **Libraries:**
  - Kristiina Hormia Poutanen (LIBER),

http://ec.europa.eu/research/openscience/pdf/ospp_nominated_members.pdf#view=fit&pagemode=none

OSPP: Mandato

Funcionar como un mecanismo dinámico basado en los agentes implicados

- Identifica problemas a tratar
- Recoger y tratar los temas que preocupan a la ciencia y la investigación

Asesorar a la Comisión

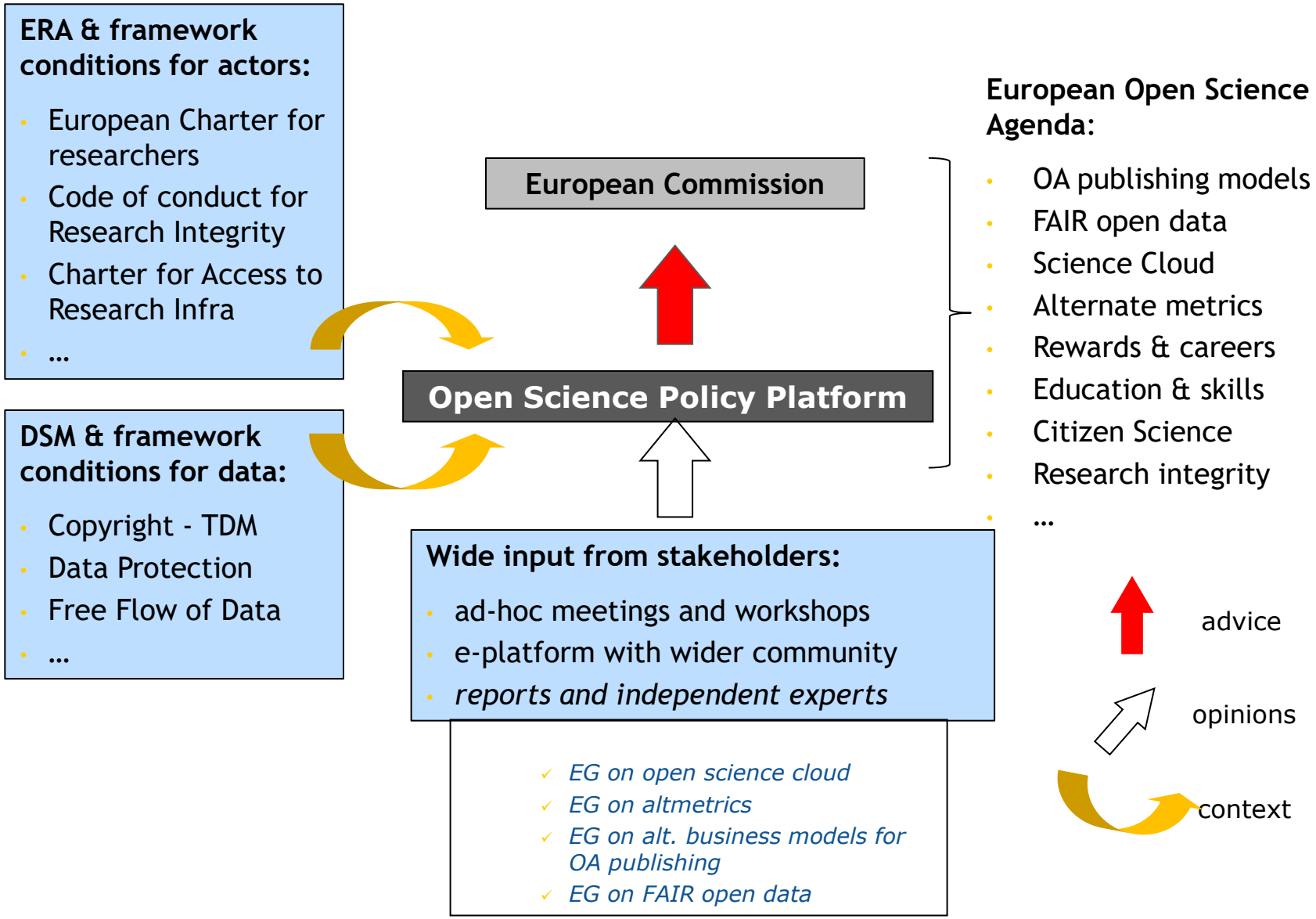
- En cómo desarrollar e implementar prácticamente la política de OS
- Hacer recomendaciones de acciones políticas necesarias y de cualquier aspecto innovador que afecte a OS.

Foto tomada durante a reunión 19/09/2016

Apoyar la implementación

Contribuyendo a revisar las mejores prácticas, creando guías políticas y promocionando la adopción activa por las partes interesadas

OSPP: Cómo funciona



EU-Cambio sistémco en la Ciencia: 5 acciones políticas y 8 ambiciones

- Fortalecer la Ciencia Abierta
- Eliminar barreras para la Open Science
- Desarrollar Infraestructuras de investigación para la Ciencia Abierta
- Convertir el acceso abierto a los datos de investigación en la situación "por defecto"
- Insertar la Ciencia abierta en la Sociedad (Ciencia Ciudadana)

1. Altmetrics en calidad e impacto
2. Cambiar modelos de publicación
3. FAIR open data
4. Open Science Cloud (EOSC)
5. Sistema de incentivos
6. Integridad de la investigación
7. Ciencia ciudadada
8. Educación y formación abierta

Open Science

Del Open Access a la Open Science… Open Data & Open…ness (Implicaciones)

Retrieved 2014-08-08

The Lancet, Volume 377, Issue 9768, Pages 849 - 862, 5 March 2011
doi:10.1016/S0140-6736(10)60667-8 Cite or Link Using DOI

2011

< Previous Article | Next Article >

This article can be found in the following collections: Infectious Diseases (Infectious diseases-other)
Published Online: 16 November 2010

Ebola haemorrhagic fever

Dr Heinz Feldmann MD [a] [b], Thomas W Geisbert PhD [c]

Summary

Ebola viruses are the causative agents of a severe form of viral haemorrhagic fever in man, designated Ebola haemorrhagic fever, and are endemic in regions of central Africa. The exception is the species Reston Ebola virus, which has not been associated with human disease and is found in the Philippines. Ebola virus constitutes an important local public health threat in Africa, with a worldwide effect through imported infections and through the fear of misuse for biological terrorism. Ebola virus is thought to also have a detrimental effect on the great ape population in Africa. Case-fatality rates of the African species in man are as high as 90%, with no prophylaxis or treatment available. Ebola virus infections are characterised by immune suppression and a systemic inflammatory response that causes impairment of the vascular, coagulation, and immune systems, leading to multiorgan failure and shock, and thus, in some ways, resembling septic shock.

31 USD

For 1 day

Closed Access Means People Die

Open Access a las publicaciones: Recursos

- Open DOAR (Directory on Open Access Repositories): http://www.opendoar.org
- DOAJ (Directory of Open Access Journals): https://doaj.org
- SHERPA RoMEO: http://www.sherpa.ac.uk/romeo
- OpenAire2020: https://www.openaire.eu
- [Tu repositorio] http://dehesa.uex.es

Open Data

"Open data and content can be freely used, modified and shared by anyone for any purpose"

http://opendefinition.org

Tim Berners-Lee's proposal for five star open data - http://5stardata.info

- ★ make your stuff available on the Web (whatever format) under an open licence
- ★★ make it available as structured data (e.g. Excel instead of a scan of a table)
- ★★★ use non-proprietary formats (e.g. CSV instead of Excel)
- ★★★★ use URIs to denote things, so that people can point at your stuff
- ★★★★★ link your data to other data to provide context

Open Access (OA) in 7FP

OA: Green/ gold

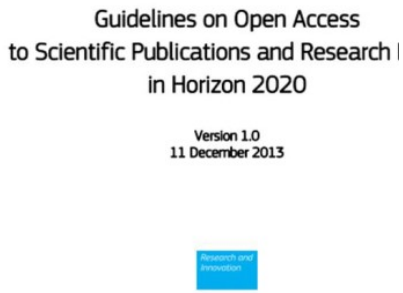
Areas: Health; Energy; Environment; Information and Communication; Technologies (Cognitive Systems, Interaction, Robotics); Research Infrastructures (e-Infrastructures); Socio-economic Sciences and Humanities; Science in Society

Embargo max: 6 meses , 12 months (SSHH)

Grant Agreement Art. 39

eInfrastructures: OpenAire y Zenodo

Open Access (OA) in Horizon 2020


Guidelines on Open Access
to Scientific Publications and Research
in Horizon 2020

Version 1.0
11 December 2013

- **OA: green & gold para todas las áreas**
- Nuevo: Open Data (29.2 y 29.3) → piloto de apertura de datos de investigación en 9 áreas (ht 2016) y para **todos los proyectos** (2017)
- Los estados miembros desarrollarán mecanismos e infraestructuras para OA
- Embargo: 6 y 12 meses como 7FP (vía verde). Depósito inmediato si gold.
- Soporte: OpeAire2020 & Zenodo (incl. datasets)

http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf

Science. Set free.

Find out what OpenAIRE is about ....

Mexico adopts OpenAIRE guidelines for literature and data repositories

The Mexican government's science and technology agency, CONACYT, has recently published a set of technical requirements for all Mexican repositories ("Technical Guidelines for the National Repository and Institutional Repositories"). These guidelines make clear the steps Mexico must take to ensure the preservation of its peer-reviewed

RESEARCHERS

Why Open Access. How to comply. What services to use.

DATA PROVIDERS

How to make your content more visible. What to do to increase quality. How to join.

RESEARCH ADMINS

FUNDERS

Why align policies and practices. How to

zenodo

Research. Shared.

Search | Communities | Browse | Upload | Get started | Sign In | Sign Up

Browse:
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- Lessons
- Images
- Posters
- Presentations
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Filter by types

Publications (27842)
Books (2157) Book sections (0) (urnal articles (11795) Patents (3) Preprints (192) Project Deliverables (51)
Project Milestones (1) Proposal 216) Technical notes (56) Working papers (182) Other (809)

Posters (420)

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Figures (333) Plots (7) Drawings (11) Diagrams (25) Photos (17) Other (12)

Videos/Audio (90)

Software (6512)

Lessons (59)

Recent Uploads

20 October 2015 | Presentation | Open access

View

Big and Smart Data Analytics - Possible Advantages to Clinical Practice

Di Meglio, Alberto ; Manca, Marco

The growing availability of large quantities of data from medical devices, laboratory notes, digital simulations, doctors' notes, images, and even social networks are opening new opportunities for medical research and clinical practice. A proper ...

Uploaded by albertodm on 21 October 2015.

Using GitHub?

Check out our GitHub integration.
Software Preservation Made Simple!

New to Zenodo?

- **Research. Shared.** — all research outputs from across all fields of science are welcome!
- **Citeable. Discoverable.** — uploads gets a Digital Object Identifier (DOI) to make them easily and uniquely citeable.
- **Community Collections** — accept or reject uploads to your own community collections (e.g workshops, EU projects or your complete own digital repository).
- **Funding** — integrated in reporting lines for research funded by the European Commission via OpenAIRE.
- **Flexible licensing** — because not everything is under Creative Commons.
- **Safe** — your research output is stored safely for the future in same cloud infrastructure as research data from CERN's Large Hadron Collider.
- **DropBox integration** — upload files straight from your DropBox.

¿Por qué abrir los datos de investigación?

"It was *never* acceptable to publish papers without making data available."

- Ewan Birney

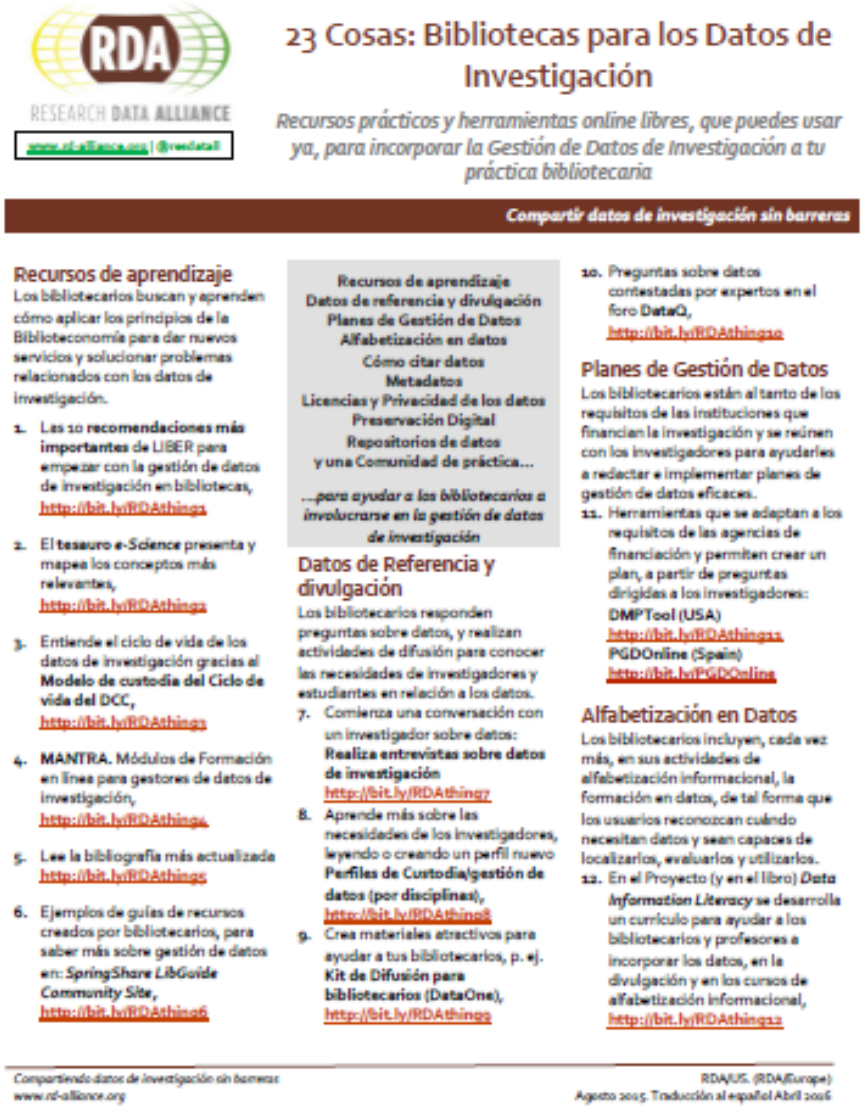
#OpenData
#OpenScience

Original image via doi:10.1038/461145a. "Research cannot flourish if data are not preserved and made accessible. Data management should be woven into every course in science." - *Nature* 461, 145

¿Qué hacer para compartir los datos de investigación?

- Crear un DMP: Data Management Plan [DMP, deliverable M6]:
  - https://dmponline.dcc.ac.uk (en inglés)
  - http://dmp.consorciomadrono.es (en español)
- Seleccionar un repositorio de datos para preservar datos, metadatos y herramientas (contactar repositorio: guías, etc.):
  - http://www.zenodo.org
- Curar datos implica mucho esfuerzo: asegúrate de que estás "guardando lo que merece la pena" *(underlying)*

23 Cosas (RD4LIB)



RDA
RESEARCH DATA ALLIANCE
www.rd-alliance.org | @rdatall

23 Cosas: Bibliotecas para los Datos de Investigación

Recursos prácticos y herramientas online libres, que puedes usar ya, para incorporar la Gestión de Datos de Investigación a tu práctica bibliotecaria

Compartir datos de investigación sin barreras

Recursos de aprendizaje

Los bibliotecarios buscan y aprenden cómo aplicar los principios de la Biblioteconomía para dar nuevos servicios y solucionar problemas relacionados con los datos de investigación.

1. Las 10 **recomendaciones más importantes** de LIBER para empezar con la gestión de datos de investigación en bibliotecas, http://bit.ly/RDAthings
2. El **tesauro e-Science** presenta y mapea los conceptos más relevantes, http://bit.ly/RDAthings
3. Entiende el ciclo de vida de los datos de investigación gracias al **Modelo de custodia del Ciclo de vida del DCC**, http://bit.ly/RDAthings
4. **MANTRA.** Módulos de Formación en línea para gestores de datos de investigación, http://bit.ly/RDAthings
5. Lee la bibliografía más actualizada http://bit.ly/RDAthings
6. Ejemplos de guías de recursos creados por bibliotecarios, para saber más sobre gestión de datos en: ***SpringShare LibGuide Community Site***, http://bit.ly/RDAthings

Recursos de aprendizaje
Datos de referencia y divulgación
Planes de Gestión de Datos
Alfabetización en datos
Cómo citar datos
Metadatos
Licencias y Privacidad de los datos
Preservación Digital
Repositorios de datos
y una Comunidad de práctica...

...para ayudar a los bibliotecarios a involucrarse en la gestión de datos de investigación

Datos de Referencia y divulgación

Los bibliotecarios responden preguntas sobre datos, y realizan actividades de difusión para conocer las necesidades de investigadores y estudiantes en relación a los datos.

7. Comienza una conversación con un investigador sobre datos: **Realiza entrevistas sobre datos de investigación** http://bit.ly/RDAthings
8. Aprende más sobre las necesidades de los investigadores, leyendo o creando un perfil nuevo **Perfiles de Custodia/gestión de datos (por disciplinas)**, http://bit.ly/RDAthings
9. Crea materiales atractivos para ayudar a tus bibliotecarios, p. ej. **Kit de Difusión para bibliotecarios (DataOne)**, http://bit.ly/RDAthings
10. Preguntas sobre datos contestadas por expertos en el foro **DataQ**, http://bit.ly/RDAthings

Planes de Gestión de Datos

Los bibliotecarios están al tanto de los requisitos de las instituciones que financian la investigación y se reúnen con los investigadores para ayudarles a redactar e implementar planes de gestión de datos eficaces.

11. Herramientas que se adaptan a los requisitos de las agencias de financiación y permiten crear un plan, a partir de preguntas dirigidas a los investigadores: **DMPTool (USA)** http://bit.ly/RDAthings **PGDOnline (Spain)** http://bit.ly/PGDOnline

Alfabetización en Datos

Los bibliotecarios incluyen, cada vez más, en sus actividades de alfabetización informacional, la formación en datos, de tal forma que los usuarios reconozcan cuándo necesitan datos y sean capaces de localizarlos, evaluarlos y utilizarlos.

12. En el Proyecto (y en el libro) ***Data Information Literacy*** se desarrolla un currículo para ayudar a los bibliotecarios y profesores a incorporar los datos, en la divulgación y en los cursos de alfabetización informacional, http://bit.ly/RDAthings

Compartiendo datos de investigación sin barreras
www.rd-alliance.org

RDA/US. (RDA/Europe)
Agosto 2015. Traducción al español Abril 2016

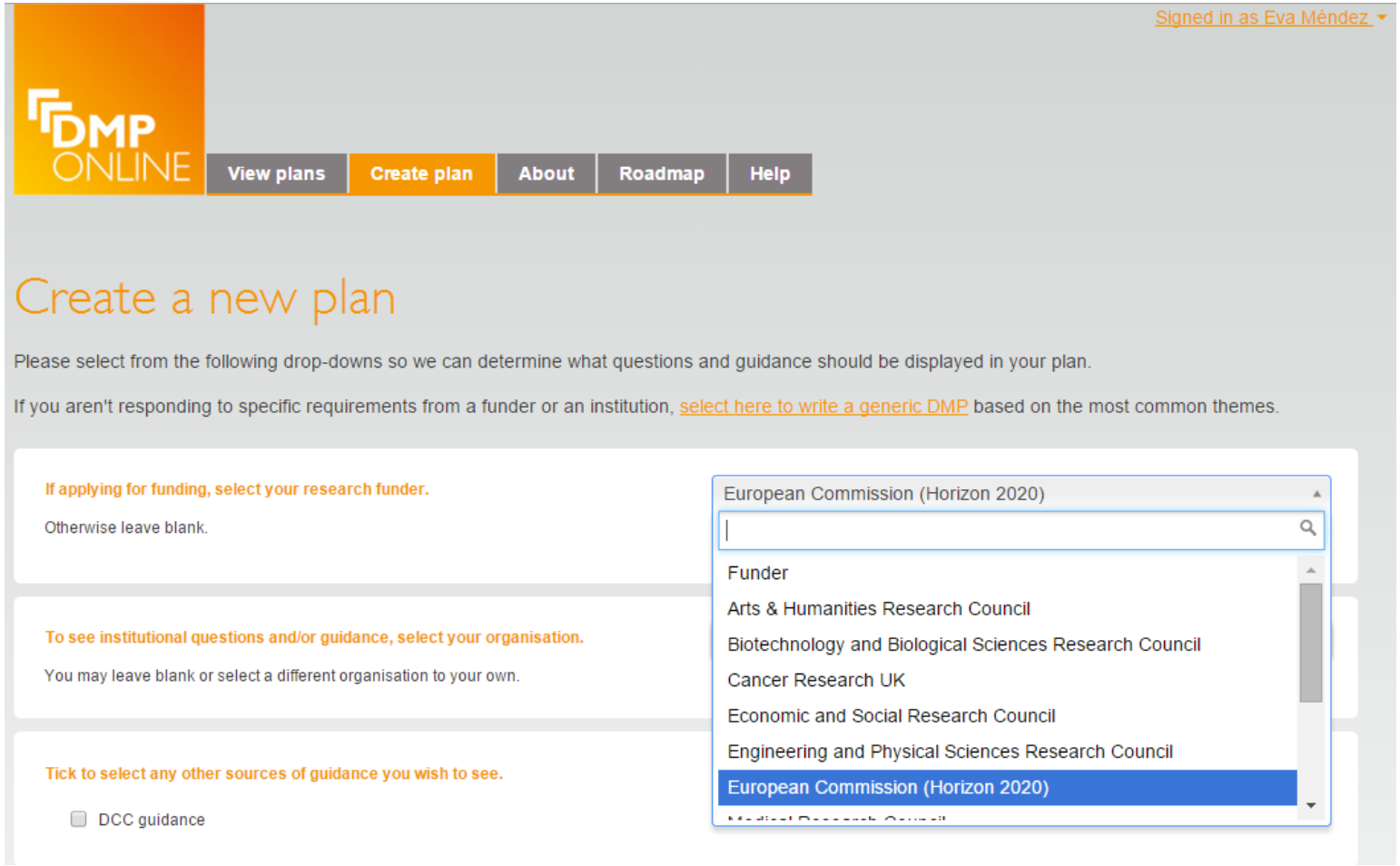
23 cosas útiles y gratis…

- Recursos de aprendizaje
- Datos de referencia y divulgación
- Planes de Gestión de Datos
- Alfabetización en datos
- Cómo citar datos
- Metadatos
- Licencias y Privacidad de los datos
- Preservación Digital
- Repositorios de datos
- y una Comunidad de práctica…

…para ayudar a los bibliotecarios a involucrarse en la gestión de datos de investigación

dx.doi.org/10.15497/RDA00013

¿Qué hacer? Herramientas/Infraestructuras
Data Management Plan



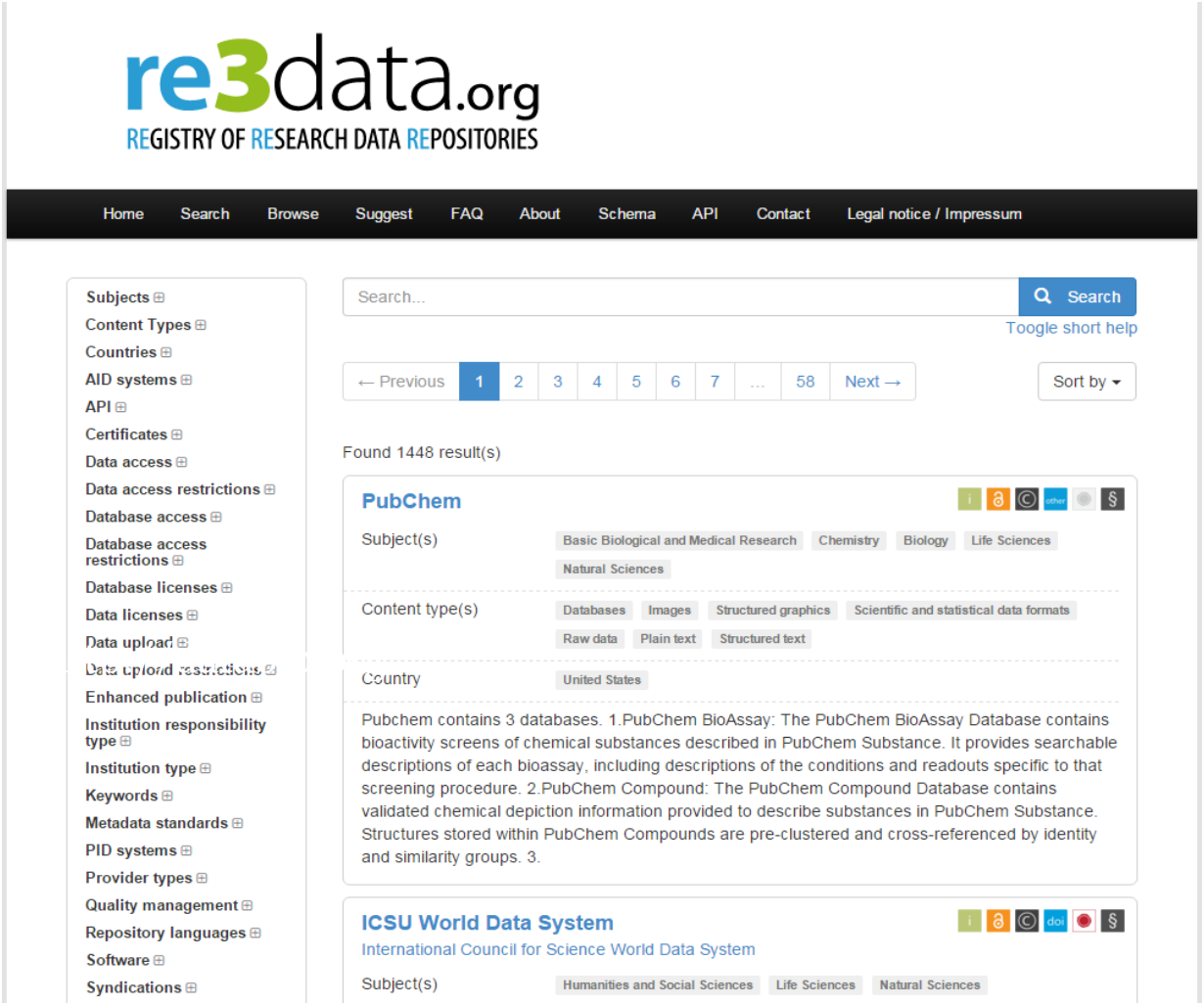
https://dmponline.dcc.ac.uk

¿Qué hacer? Herramientas/Infraestructuras
Data Management Plan (PGD)

http://www.consorciomadrono.es/pagoda

¿Qué hacer? Herramientas/Infraestructuras
Registro de Repositorios de Datos de Investigación

http://service.re3data.org



¿Qué hacer? Herramientas
Repositorio de Datos de Investigación multidisciplinar

Zenodo.org

OpenAIRE-CERN

Multidisciplinar

Diferentes tipos de datos (publicaciones, *datasets*, etc.) Citables (DOI)

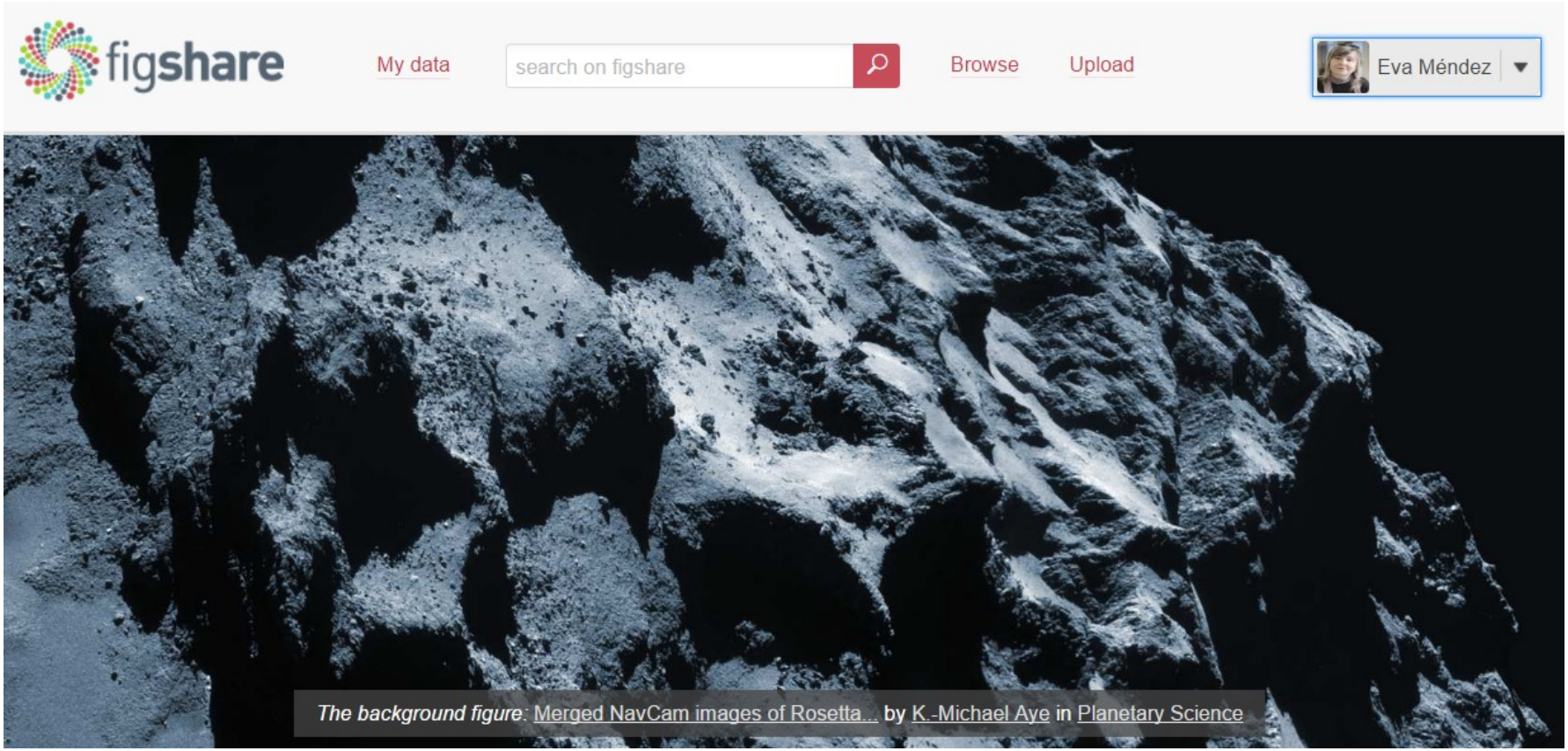
Enlace de la financiación *(grant)* a las publicaciones, datos y software (en su caso)

https://zenodo.org

¿Qué hacer? Herramientas
Otras opciones de repositorios de datos

http://datadryad.org

¿Qué hacer? Herramientas
Otras opciones de repositorios de datos



https://figshare.com

Implicaciones de Open Science para la financiación de la investigación

https://www.flickr.com/photos/eventosuc3m/albums/72157652847942161

EU Open Science Cloud

http://bit.ly/EOSCvideo

Gestión de datos FAIR (RR)
(Julio 2016)


EUROPEAN COMMISSION
Directorate-General for Research & Innovation

H2020 Programme

Guidelines on

FAIR Data Management in Horizon 2020

Version 3.0
26 July 2016

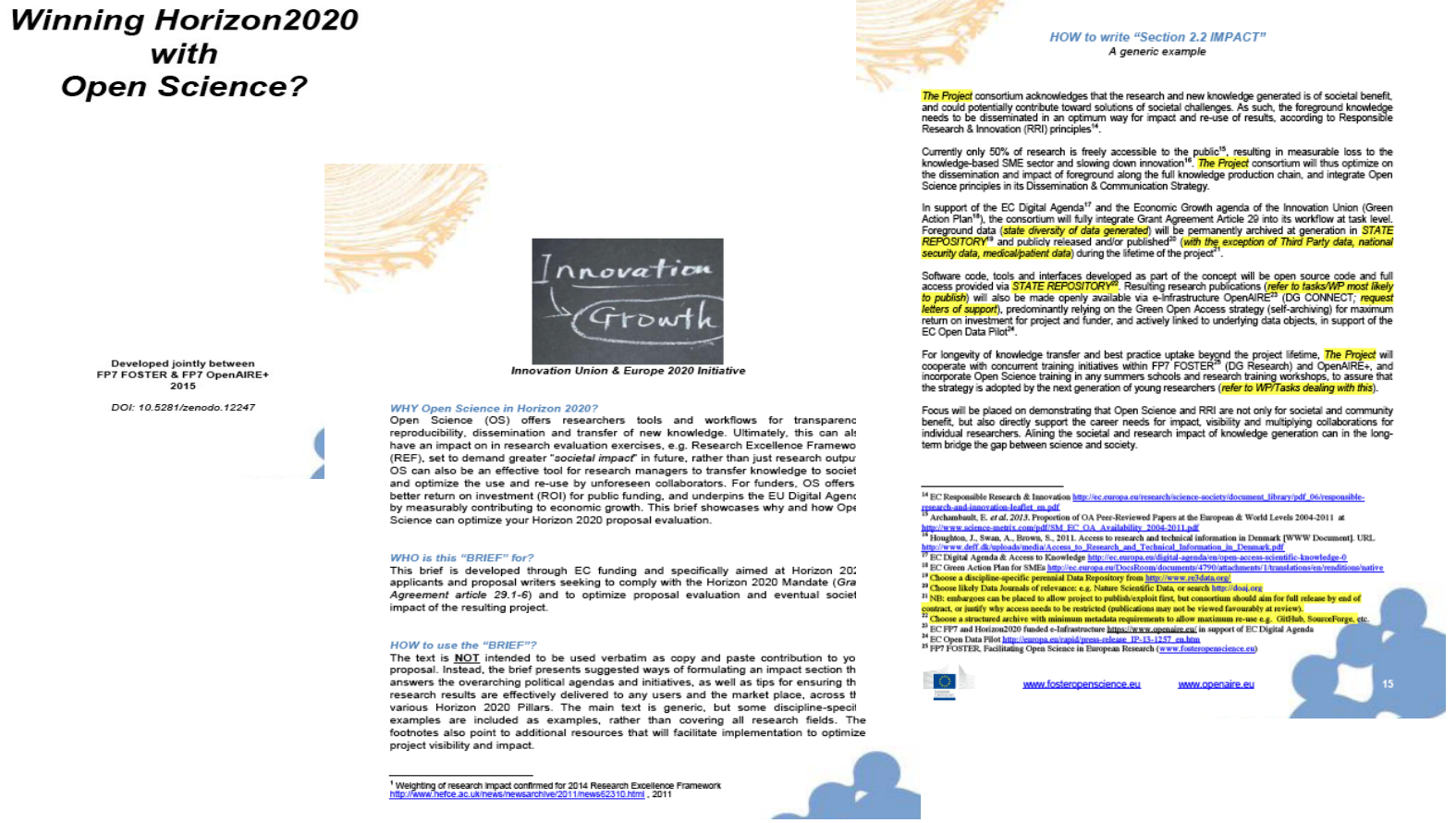
- **F**indable (metadatos, PID)
- **A**ccessible (Open)
- **I**nteroperable (estándares)
- **R**e-usable (licencias)

+

- **R**eliable (certificación)
- **R**eproducible

Implicaciones de Open Science para la financiación de la investigación

https://zenodo.org/record/12247/files/Winning_Horizon_2020_with_Open_Science_by_FP7_FOSTER_10.5281zenodo.12247.pdf



Winning Horizon2020 with Open Science?

Developed jointly between FP7 FOSTER & FP7 OpenAIRE+ 2015

DOI: 10.5281/zenodo.12247

Innovation Union & Europe 2020 Initiative

WHY Open Science in Horizon 2020?

Open Science (OS) offers researchers tools and workflows for transparenc reproducibility, dissemination and transfer of new knowledge. Ultimately, this can al have an impact on in research evaluation exercises, e.g. Research Excellence Framewo (REF), set to demand greater "*societal impact*" in future, rather than just research outpu OS can also be an effective tool for research managers to transfer knowledge to societ and optimize the use and re-use by unforeseen collaborators. For funders, OS offers better return on investment (ROI) for public funding, and underpins the EU Digital Agenc by measurably contributing to economic growth. This brief showcases why and how Ope Science can optimize your Horizon 2020 proposal evaluation.

WHO is this "BRIEF" for?

This brief is developed through EC funding and specifically aimed at Horizon 20 applicants and proposal writers seeking to comply with the Horizon 2020 Mandate (*Gra Agreement article 29.1-6*) and to optimize proposal evaluation and eventual societ impact of the resulting project.

HOW to use the "BRIEF"?

The text is **NOT** intended to be used verbatim as copy and paste contribution to yo proposal. Instead, the brief presents suggested ways of formulating an impact section th answers the overarching political agendas and initiatives, as well as tips for ensuring th research results are effectively delivered to any users and the market place, across t various Horizon 2020 Pillars. The main text is generic, but some discipline-specif examples are included as examples, rather than covering all research fields. The footnotes also point to additional resources that will facilitate implementation to optimize project visibility and impact.

[1] Weighting of research impact confirmed for 2014 Research Excellence Framework http://www.hefce.ac.uk/news/newsarchive/2011/news82310.html , 2011

HOW to write "Section 2.2 IMPACT"

A generic example

The Project consortium acknowledges that the research and new knowledge generated is of societal benefit, and could potentially contribute toward solutions of societal challenges. As such, the foreground knowledge needs to be disseminated in an optimum way for impact and re-use of results, according to Responsible Research & Innovation (RRI) principles[14].

Currently only 50% of research is freely accessible to the public[15], resulting in measurable loss to the knowledge-based SME sector and slowing down innovation[16]. *The Project* consortium will thus optimize on the dissemination and impact of foreground along the full knowledge production chain, and integrate Open Science principles in its Dissemination & Communication Strategy.

In support of the EC Digital Agenda[17] and the Economic Growth agenda of the Innovation Union (Green Action Plan[18]), the consortium will fully integrate Grant Agreement Article 29 into its workflow at task level. Foreground data (*state diversity of data generated*) will be permanently archived at generation in *STATE REPOSITORY*[19] and publicly released and/or published[20] (*with the exception of Third Party data, national security data, medical/patient data*) during the lifetime of the project[21].

Software code, tools and interfaces developed as part of the concept will be open source code and full access provided via *STATE REPOSITORY*[22]. Resulting research publications (*refer to tasks/WP most likely to publish*) will also be made openly available via e-Infrastructure OpenAIRE[23] (DG CONNECT; *request letters of support*), predominantly relying on the Green Open Access strategy (self-archiving) for maximum return on investment for project and funder, and actively linked to underlying data objects, in support of the EC Open Data Pilot[24].

For longevity of knowledge transfer and best practice uptake beyond the project lifetime, *The Project* will cooperate with concurrent training initiatives within FP7 FOSTER[25] (DG Research) and OpenAIRE+, and incorporate Open Science training in any summers schools and research training workshops, to assure that the strategy is adopted by the next generation of young researchers (*refer to WP/Tasks dealing with this*).

Focus will be placed on demonstrating that Open Science and RRI are not only for societal and community benefit, but also directly support the career needs for impact, visibility and multiplying collaborations for individual researchers. Aiming the societal and research impact of knowledge generation can in the long-term bridge the gap between science and society.

[14] EC Responsible Research & Innovation http://ec.europa.eu/research/science-society/document_library/pdf_06/responsible-research-and-innovation-leaflet_en.pdf
[15] Archambault, E. *et al. 2013*. Proportion of OA Peer-Reviewed Papers at the European & World Levels 2004-2011 at http://www.science-metrix.com/pdf/SM_EC_OA_Availability_2004-2011.pdf
[16] Houghton, J., Swan, A., Brown, S., 2011. Access to research and technical information in Denmark [WWW Document]. URL http://www.deff.dk/uploads/media/Access_to_Research_and_Technical_Information_in_Denmark.pdf
[17] EC Digital Agenda & Access to Knowledge http://ec.europa.eu/digital-agenda/en/open-access-scientific-knowledge-0
[18] EC Green Action Plan for SMEs http://ec.europa.eu/DocsRoom/documents/4790/attachments/1/translations/en/renditions/native
[19] Choose a discipline-specific perennial Data Repository from http://www.re3data.org/
[20] Choose likely Data Journals of relevance: e.g. Nature Scientific Data, or search http://doaj.org
[21] NB: embargoes can be placed to allow project to publish/exploit first, but consortium should aim for full release by end of contract, or justify why access needs to be restricted (publications may not be viewed favourably at review).
[22] Choose a structured archive with minimum metadata requirements to allow maximum re-use e.g. GitHub, SourceForge, etc.
[23] EC FP7 and Horizon2020 funded e-Infrastructure https://www.openaire.eu/ in support of EC Digital Agenda
[24] EC Open Data Pilot http://europa.eu/rapid/press-release_IP-13-1237_en.htm
[25] FP7 FOSTER, Facilitating Open Science in European Research (www.fosteropenscience.eu)

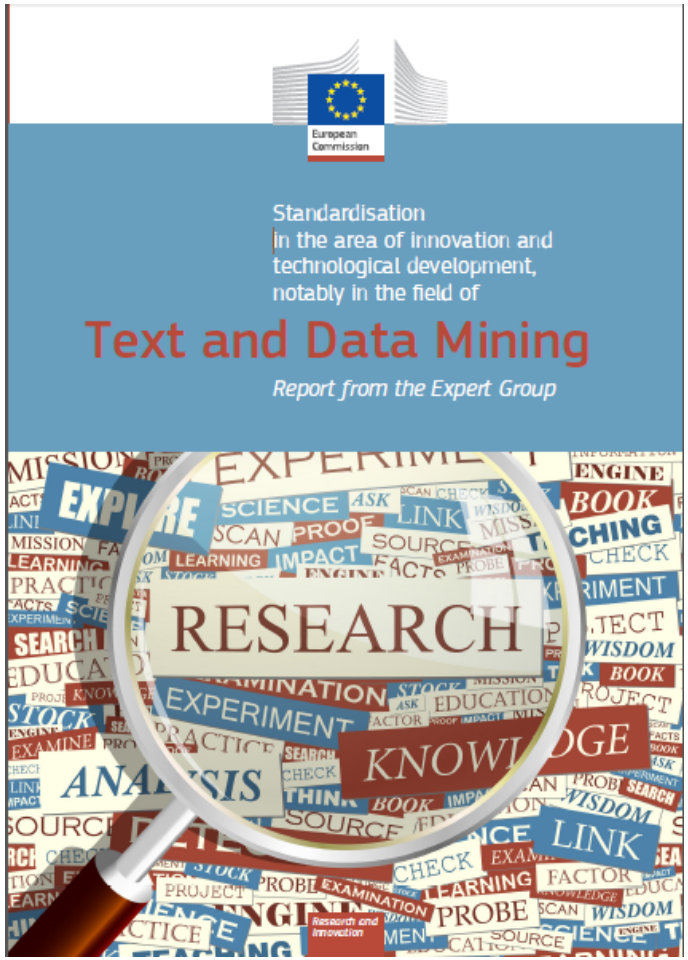
www.fosteropenscience.eu www.openaire.eu

15

Open Science

Un poco más allá...

Open Science… más allá: Text and Data Mining…



Text and data mining (TDM) is an important technique for analysing and extracting new insights and knowledge from the exponentially increasing store of digital data ('Big Data').

It is important to understand the extent to which the EU's current legal framework encourages or obstructs this new form of research and to assess the scale of the economic issues at stake.

http://ec.europa.eu/research/innovation-union/pdf/TDM-report_from_the_expert_group-042014.pdf

TDM: The Hague Declaration (2014)

- http://thehaguedeclaration.com
- *Access to Facts, Data and Ideas for Knowledge Discovery in the Digital Age*
- "Mover barreras legales para extraer el capital de los datos"

A panel of global experts drafted the Declaration. Now we'd like your comments.

Image by LIBER Europe, CC-BY

¿Qué implicará la Open Science en 2030?

https://ec.europa.eu/research/swafs/pdf/pub_open_science/open_science_2030.pdf

EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR RESEARCH & INNOVATION

Directorate A – Policy Development and Coordination
A.6- Science Policy and Foresight

European Commission

Open Science 2030

A Day in the Life of a Scientist, AD 2030

The year is 2030. Open science has become a reality and is offering a whole range of new, unlimited opportunities for research and discovery worldwide. Scientists, citizens, publishers, research institutions, public and private research funders, students and education professionals as well as companies and citizens from around the globe are sharing an open, virtual research environment, called the Lab.

Open source communities and scientists, publishing companies and the high-tech industry have pushed the EU and UNESCO to develop common open research standards, establishing a virtual learning gateway, offering free public access to all scientific data as well as to all publicly funded research.

Open Science

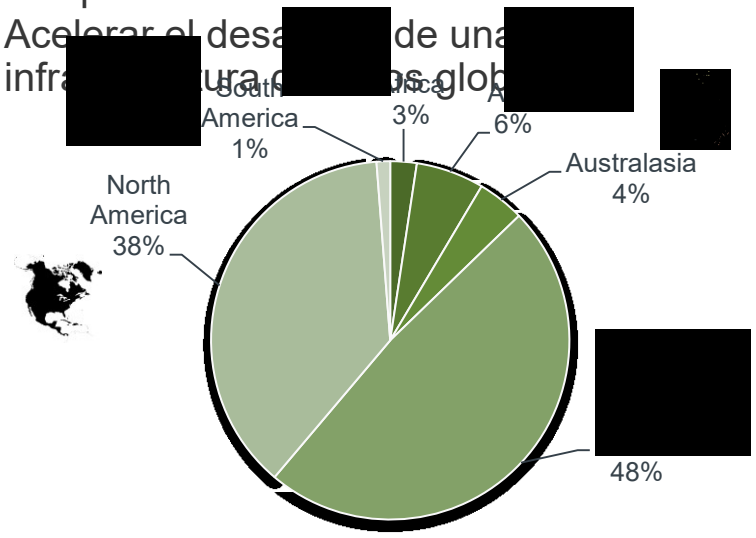
Un par de iniciativas

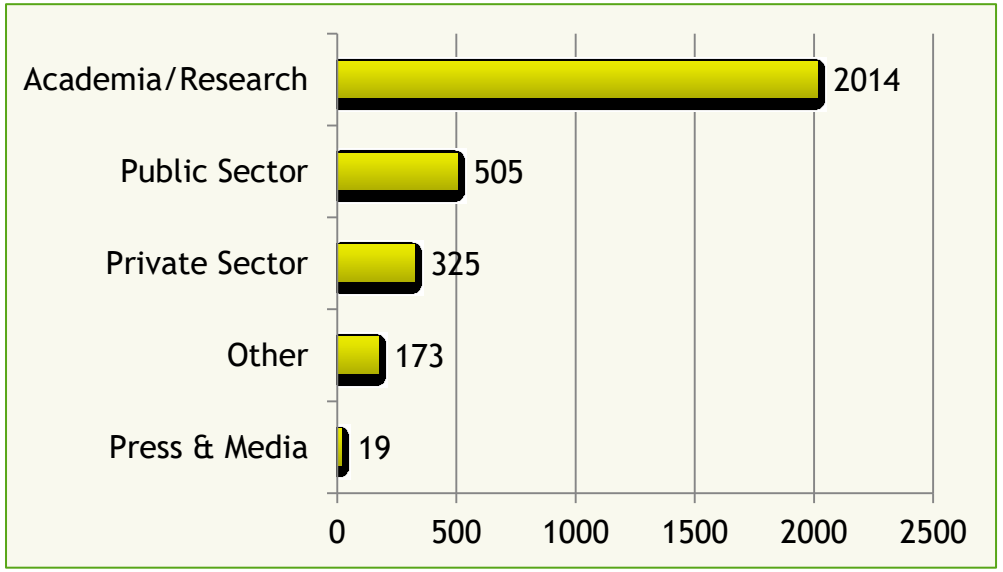
- ***RDA***
- ***Maredata***

RDA *(Nooooo Research Description and Access) :-O*

Crear una infraestructura organizacional, técnica y social para:

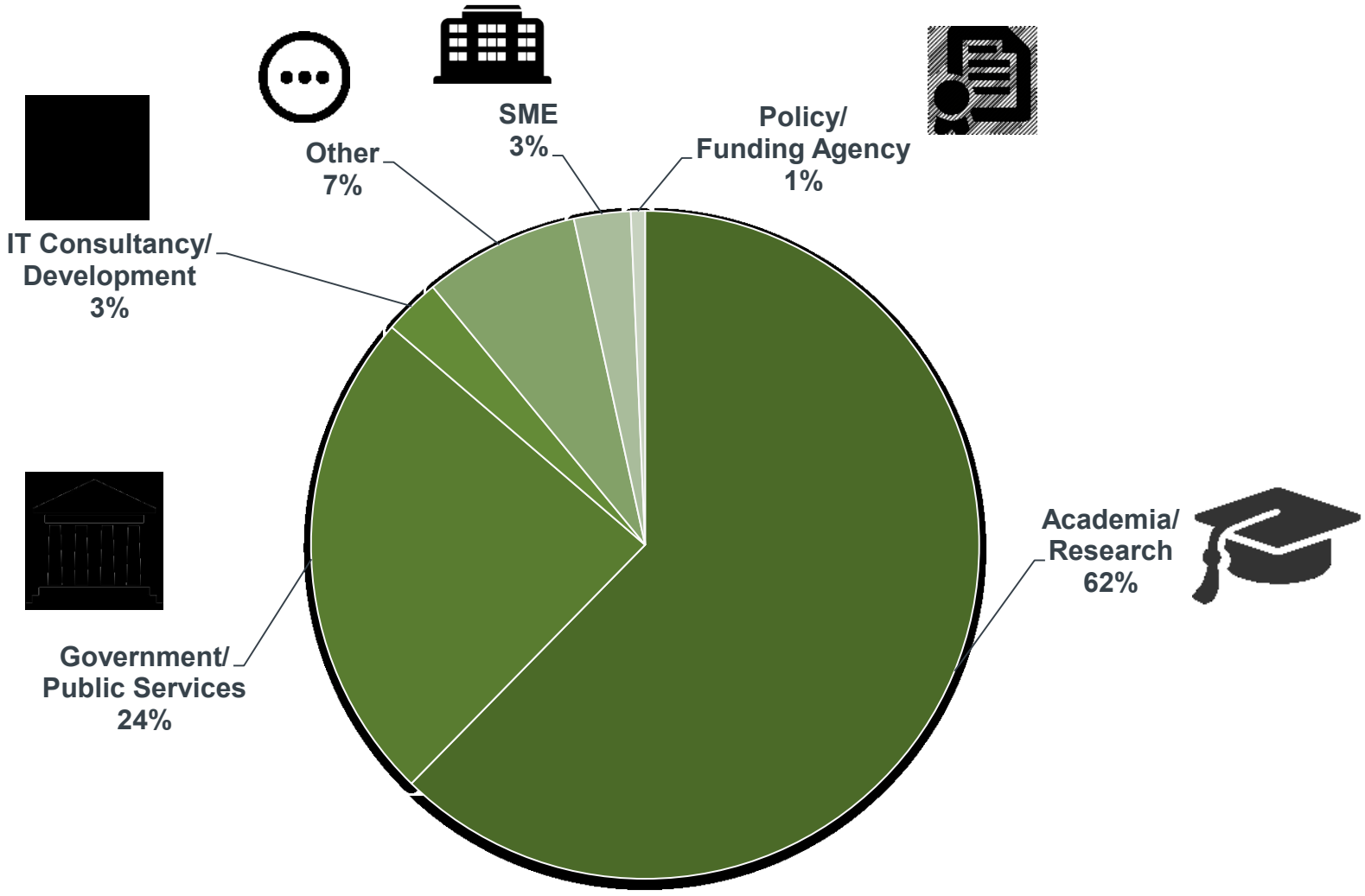
- Reducir las barreras para que los datos de investigación se puedan compartir e intercambiar
- Acelerar el desa[redacted] de una infra[redacted]ura [redacted]os glob[redacted]



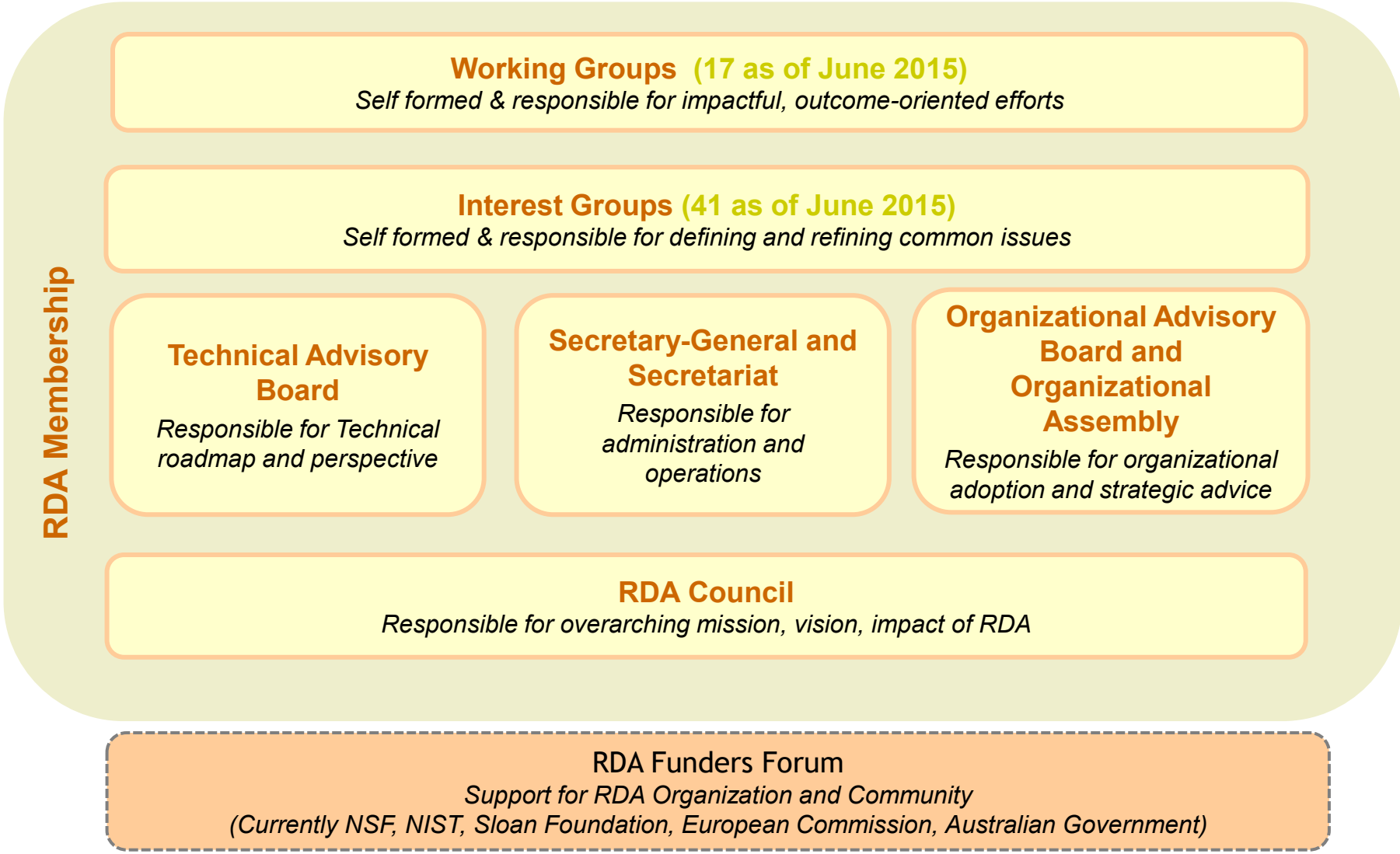


RESEARCH DATA ALLIANCE

Composición



RDA: Organización (2015)



http://www.maredata.net

MareData

Red Española sobre Datos de Investigación en Abierto

@maredataproject

#maredata

Pre-evento IODC Maredata [Materiales disponibles]

Oct 21, 2016

Ya están disponibles los vídeos y presentaciones de la sesión del pasado 5 de octubre en IODC. Modera y presenta: Eva Méndez (@evamen) miembro de la Red Temática Maredata. [Vídeo] Datos abiertos de investigación: algunas preposiciones. Ernest Abadal, coordinador...

Pre-evento IODC: Workshop on open data and language processing technologies [Material disponible]

Oct 19, 2016

El pasado día 5 de octubre Maredata estuvo en el Pre-evento del IODC Workshop on open data and language processing technologies: An opportunity not to be missed. El objetivo de este taller fue abordar las oportunidades que representan los datos lingüísticos abiertos...

Presentación disponible del taller en el XV Workshop de REBIUN: ¿Qué

Ponentes del pre-evento IODC-MAREDATA

Sep 22, 2016

A continuación presentamos brevemente los ponentes del pre-evento IODC. Ernest Abadal. Es catedrático de la Facultat de Biblioteconomia i Documentació de la Universitat de Barcelona. Licenciado en Filosofía, diplomado en Biblioteconomía y Documentación y doctor en...

TWITTER MAREDATA

Tweets sobre maredata

Eva Méndez retwitteó
maredata @maredataproject
La agenda de la red Maredata en la #OAWeek2016 MAREDATA IN ACTION bit.ly/2emsfbb @reme_melero @evamen Antonia Ferrer @abadal
21h

Alexandre Lopez retwitteó
maredata @maredataproject
La agenda de la red Maredata en la #OAWeek2016 MAREDATA IN ACTION bit.ly/2emsfbb @reme_melero @evamen Antonia Ferrer @abadal
21h

Insertar Ver en Twitter

Open Science

¿Y tú?

Acciones!!!

Entonces… ¿por qué Open Science?

- ✓ Mayor visibilidad e impacto (autores y proyectos)
- ✓ Convierte la investigación en interconectada
- ✓ La investigación interconectada genera *"serendipity"* (siempre)
- ✓ Aumenta la velocidad de la innovación y descubrimiento, lleva ideas al mercado y soluciones a retos sociales
- ✓ Se puede acceder a la bibliografía pertinente - no detrás de barreras de pago
- ✓ Asegurar que las investigaciones es transparente y reproducible
- ✓ Genera nuevas colaboraciones/asociaciones en investigación
- ✓ Asegurar el acceso a largo plazo a los resultados de investigación
- ✓ Ayudar a aumentar la eficiencia de la investigación
- ✓ Contribuye directamente al crecimiento económico !!!

REPRODUCIBILITY !!!

Entonces… ¿por qué Open Science?

“Motivadores de la voluntad”

And you? What are you going to do?

Introduction video Conference Open Science 4- 5 april 2016 (Dutch Presidency EU2016)
https://www.youtube.com/watch?v=C9a3Ap3yyak

UNIVERSIDAD DE EXTREMADURA

¡¡Gracias!!

emendez@bib.uc3m.es

@evamen

emendez@bib.uc3m.es
@evamen

Preguntas / Debate

Thanks to my friends of FOSTER project, for some slides and inspiration (specially: Sarah Jones, Ivo Grigorov).

https://www.fosteropenscience.eu